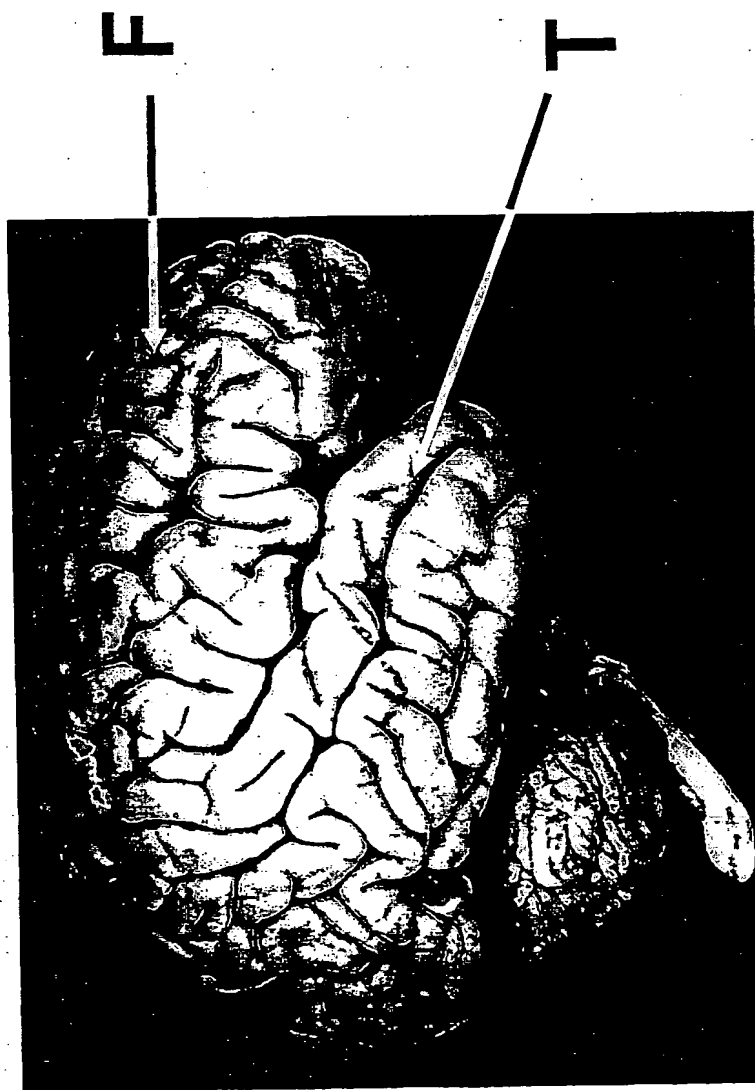


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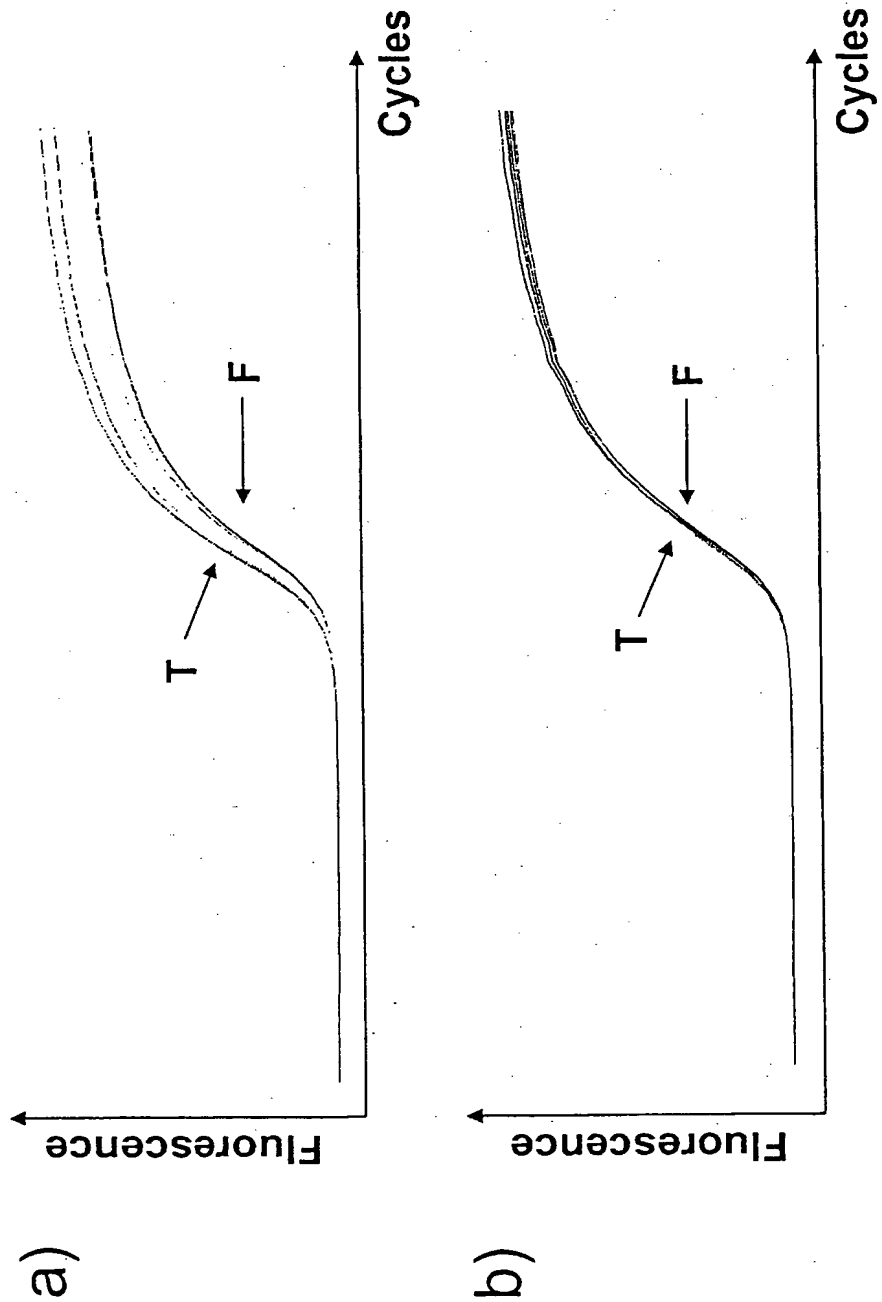
**Fig. 1: Identification of Genes Involved  
in Alzheimer's Disease Pathology**



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Fig. 2: Verification of differential expression  
of RAB31 by quantitative RT-PCR



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**Fig. 3: SEQ ID NO. 1;  
amino acid sequence of  
human RAB31 protein**

**Length: 194 aa**

```
1  MAIRELKVCL LGDTGVGKSS IVCRFVQDHF DHNISPTIGA SFMTKTVPCG
51  NELHKFLIWD TAGQERFHSL APMYYRGSAA AVIVYDITKQ DSFYTLKKWV
101 KELKEHGPEN IVMAIAGNKC DLSDIREVPL KDAKEYAESI GAIVVETSAK
151 NAINIEELFQ GISRQIPPLD PHENGNGTI KVEKPTMQAS RRCC
```

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**Fig. 4: SEQ ID NO. 2;  
nucleotide sequence of  
human RAB31 cDNA  
coding sequence**

Length: 585 bp

```
1  ATGGCGATAC GGGAGCTCAA AGTGTGCCTT CTCGGGGACA CTGGGGTTGG
51  GAAATCAAGC ATCGTGTGTC GATTTGTCCA GGATCACTTT GACCACAACA
101 TCAGCCCTAC TATTGGGGCA TCTTTTATGA CCAAACCTGT GCCTTGTGGA
151 AATGAACTTC ACAAGTTCCT CATCTGGGAC ACTGCTGGTC AGGAACGGTT
201 TCATTCATTG GCTCCCATGT ACTATCGAGG CTCAGCTGCA GCTGTTATCG
251 TGTATGATAT TACCAAGCAG GATTCATTTT ATACCTTGAA GAAATGGGTC
301 AAGGAGCTGA AAGAACATGG TCCAGAAAAC ATTGTAATGG CCATCGCTGG
351 AAACAAGTGC GACCTCTCAG ATATTAGGGA GGTTCCTCTG AAGGATGCTA
401 AGGAATACGC TGAATCCATA GGTGCCATCG TGGTTGAGAC AAGTGCAAAA
451 AATGCTATTA ATATCGAAGA GCTCTTTCAA GGAATCAGCC GCCAGATCCC
501 ACCCTTGGAC CCCCATGAAA ATGGAAACAA TGAACAATC AAAGTTGAGA
551 AGCCAACCAT GCAAGCCAGC CGCCGGTGCT GTTGA
```

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**Fig. 5: SEQ ID NO. 3**

**Length: 212 bp**

```
1  ACCGTGGACC ACGGCCCTTG GGTCAACAGC ACCGGCGGCT GGCTTGCATG
51  GTTGGCTTCT CAACTTTGAT TGTTCATTG TTTCCACTTT CATGGGGGTC
101 CAAGGGTGGG ATCTGGCGGC TGATTCCTTG AAAGAGCTCT TCGATATTAA
151 TAGCATTTTT TGCACTTGTC TCAACCACGA TGGCACCTAT GGATTCAGCG
201 TATTCCTTAG CA
```

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**Fig. 6: Alignment of SEQ ID NO. 3  
with human RAB31 cDNA**

**Length: 212 bp**

```
212 TGCTAAGGAATACGCTGAATCCATAGGTGCCATCGTGGTTGAGACAAGTG 163
    ||||||||||||||||||||||||||||||||||||||||||||||||
527 TGCTAAGGAATACGCTGAATCCATAGGTGCCATCGTGGTTGAGACAAGTG 576

162 CAAAAAATGCTATTAATATCGAAGAGCTCTTTCAAGGAATCAGCCGCCAG 113
    ||||||||||||||||||||||||||||||||||||||||||||||||
577 CAAAAAATGCTATTAATATCGAAGAGCTCTTTCAAGGAATCAGCCGCCAG 626

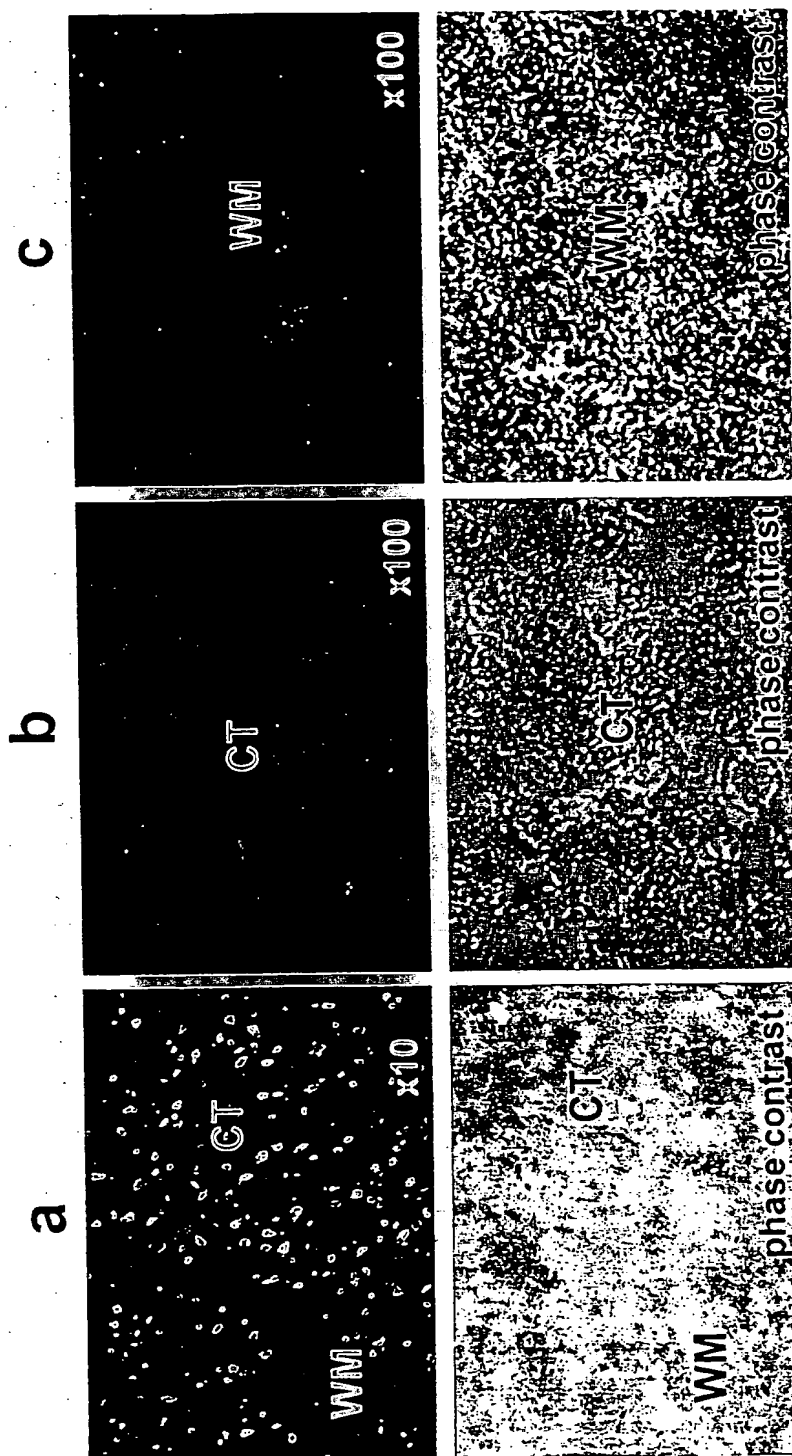
112 ATCCCACCCTTGGACCCCCATGAAAGTGGAAACAATGGAACAATCAAAGT 63
    ||||||||||||||||||||||||||||||||||||||||||||||||
627 ATCCCACCCTTGGACCCCCATGAAATGGAAACAATGGAACAATCAAAGT 676

62 TGAGAAGCCAACCATGCAAGCCAGCCGCCGGTGCTGTTGACCCAAGGGCC 13
    ||||||||||||||||||||||||||||||||||||||||||||||||
677 TGAGAAGCCAACCATGCAAGCCAGCCGCCGGTGCTGTTGACCCAAGGGCC 726

12 GTGGTCCACGGT 1
    ||||||||||
727 GTGGTCCACGGT 738
```

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Fig. 7: Images of human cerebral sections labeled with anti-RAB31 antiserum and with DAPI



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Fig.8: Identification of differentially expressed genes in microarray hybridization experiments

Biochip	Type of probe	Used probes (Cy5- / Cy3-labeled)	Ratio fluorescence intensity: temporal / frontal cortex
1	C	PT <sub>SSH(2)</sub> / PF <sub>SSH(1)</sub>	1.61
2	B	PT / PF	1.74



Fig.9

sample  $\Delta$  (fold)  
(temporal / frontal cortex)

control C011	0.83
control C012	0.80
control C014	1.45
control C005	0.77
control C008	1.08
patient P012	1.10
patient P016	1.78
patient P010	1.91
patient P011	1.69
patient P014	1.04
patient P017	2.43
patient P019	1.78

